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| 09/976,338 | 10/12/2001 | Santhana Krishnamachari | US 010526 | 9237 |

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EXAMINER

LEE, Y YOUNG

ART UNIT PAPER NUMBER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

JUL 13 2006

Technology Center 2600

Application Number: 09/976,338
Filing Date: October 12, 2001
Appellant(s): KRISHNAMACHARI ET AL.

Oleg Kaplun
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/7/06 appealing from the Office action
mailed 1/17/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, 4-17, and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Radha et al (6,292,512) for the same reasons as set forth in Section 5 of the previous office action, dated 7/27/04.

Radha et al, in Figures 2 and 6-11, discloses a scalable video coding system that is the same system for transmitting and decoding encoded video signals as specified in claims 1, 2, 4-17, and 19-21 of the present invention, comprising a system for partitioning encoded video data into a plurality of streams (42, 51), a system for determining a priority for each of a plurality of streams of encoded video data 48; and a system for assigning a variable modulation rate 55 to each stream of encoded video data based on the determined priority 48; wherein a higher modulation rate ($R - R_{BL}$) is assigned to lower priority streams EL and a lower modulation rate (R_{BL}) is assigned to higher priority streams BL; and wherein the variable modulation rate 5705 dictating a rate 5706 at which a stream of encoded video (BL/EL) is to be transmitted over a transmission channel 43.

With respect to claims 2, 4-17, and 19-21, Radha et al also discloses a system that ensures that an average modulation rate substantially conforms to a predetermined target rate for the plurality of streams (Fig. 10); partitioning the encoded video data based on a criteria selected from the group consisting of distinctions between frame type (Fig. 2), header and non-header data (e.g. MPEG headers), base BL and enhancement layer EL streams present in a scalable coded video, and distinctions in

video packets containing data corresponding to at least one macroblocks (MPEG-4); wherein the priority of each stream is determined based on an MPEG frame type, and wherein streams containing I frames are determined to have a relatively higher priority than streams containing P frames and B frames (Fig. 2); at least one macroblock is determined based on motion and texture information contained in the macroblock (e.g. MPEG-4 syntax); and assigning a relatively higher priority to MPEG header data (base layers) than non-header MPEG data (enhancement layers).

(10) Response to Argument

Appellant asserts on pages 4-5 of the Brief that Radha et al fails to disclose that the transmitted rate is related to an encoding rate. However, Figure 6 of Radha et al illustrate the concept of such transmission rate is calculated based on the encoding rate of the base layer encoder 44. In particular, Column 6, lines 24-26 of Radha et al state that R_{BL} is determined based on the variable-bandwidth network 43. Therefore, one of ordinary skill in the art would recognize that the base layer BL stream is encoded at a variable rate of R_{BL} , while the enhancement layer EL is also encoded at a second variable rate of $R - R_{BL}$ (see arrows from scalable rate controller 55 to variable bandwidth network 43). Thus, Radha et al discloses that the encoding of video data and the transmission of the coded data are dependent of one another. More specifically, they are dependent on a determined priority data stream from the base layer BL. To further demonstrate the concept of such priority, steps 5702-5706 in Figure 7 of Radha et al outline the importance of assigning a variable rate to each layer of encoded video data

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based on the determined priority by outputting the coded base layer BL data as precedence and only selected residual EL data.

Appellant also argues that claim 1 specifies assigning a variable modulation rate to each stream of encoded video data based on the determined priority. However, a recitation that “each one of modulation, encoding, and transmission rate is independent from one another” having only two discrete priority assignment within the stream is not found in Appellant’s claim 1, as illustrated in Figure 2 of Appellant’s Drawings. Without such specific limitation included in the claims, Examiner maintains that the invention of Radha et al is consistent with Appellant’s disclosure in its broadest sense where video signals may be either encoded using one of a base layer encoder and an enhancement layer encoder and transmitted in a network.

One possible interpretation of Appellant’s claim 1 requires a method of transmitting encoded videos, comprising two steps:

- (1) for one or more streams, encode video signal at a base layer; and
- (2) encode a different portion of the video signal at an enhancement layer higher than the base layer.

Under this interpretation, Radha et al discloses an encoder 400 for encoding one or more streams of the video signal in at least two different rates (44, 54). The portions that are encoded in Fine Granular Scalable EL Encoder 54 are at a layer higher than the streams that are encoded in BL Encoder 44.

Another possible interpretation of Appellant's claim 1 that is also consistent with Appellant's Specification specifies a method of encoding streams of a video signal, comprising two processes:

- (1) encode at least one stream of the video at a base layer; and
- (2) encode a second stream of the video at a second layer higher than the first layer.

Again, Figure 6 of Radha et al also anticipates such alternative interpretation by disclosing two different encoders for performing two different processes. BL Encoder 44 encodes at least one stream of the video at a base layer; and Fine Granular Scalable EL Encoder 54 encodes at least one other stream of the video at a layer higher than the base layer 44.

In conclusion, Examiner respectfully submits that Appellant's argument regarding independent claim 1 that the two different streams encoded at variable rates must be based on certain priority is not necessarily limited to Appellant's only interpretation. Examiner acknowledges that Radha et al does not describe a method identical to that disclosed by appellants. However, claims are to be given their broadest reasonable interpretation during prosecution, and the scope of a claim cannot be narrowed by reading disclosed limitations into the claim. See In re Morris, 127 F.3d 1048, 1054, 44 USPQ2D 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321, 13 USPQ2D 1320, 1322 (Fed. Cir. 1989); In re Prater, 415 F.2d 1393, 1404, 162 USPQ 541, 550 (CCPA 1969). In addition, the law of anticipation does not require that a reference "teach" what an appellant's disclosure teaches. Assuming that reference is properly

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"prior art," it is only necessary that the claims "read on" something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or "fully met" by it.

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

(12) Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



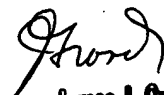
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